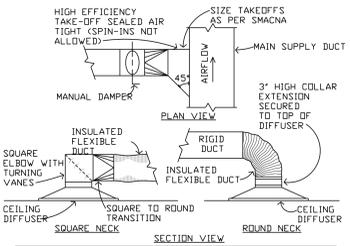
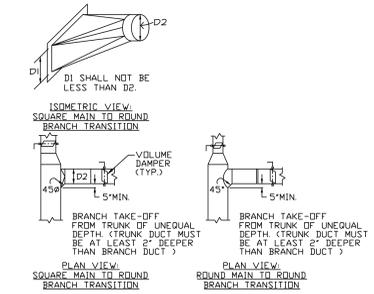


7 DUCT CONNECTION DETAILS  
SCALE: NTS



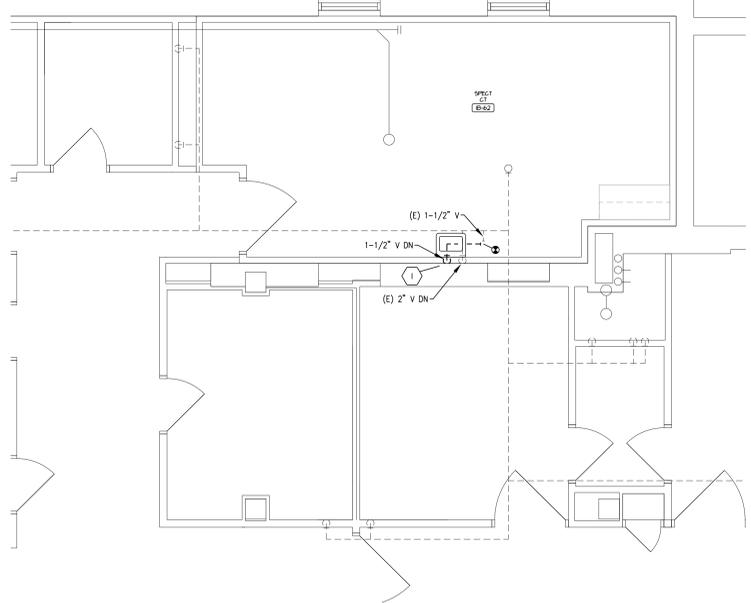
NOTES:  
 1. MAXIMUM FLEX DUCT LENGTH ALLOWED 5'-0".  
 2. SUPPORT FLEX DUCT EVERY 3'-0".  
 3. SPIN-INS OR CONICAL TAKE-OFFS ARE NOT ALLOWED.  
 4. ALL FLEX DUCT TO BE BANNED AND ENDS TAPED.  
 5. PROVIDE VOLUME DAMPER DAMPER ARM SHALL BE LONG ENOUGH TO PROVIDE PAST INSULATION. ANY SHORT ARM VOLUME DAMPERS THAT ARE INSTALLED WILL BE REMOVED & REPLACED WITH LONG ARM DAMPERS.

6 SUPPLY DUCT TO DIFFUSER DETAIL  
SCALE: NTS

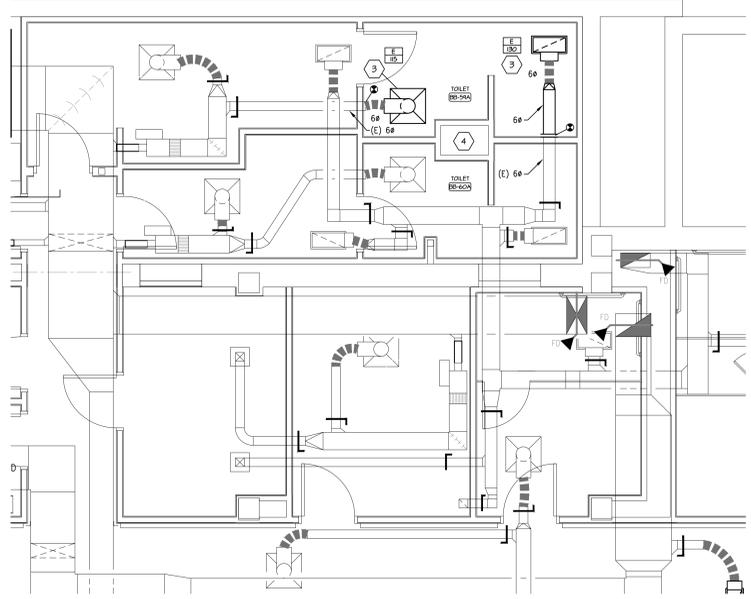


NOTES:  
 1. SIZE ALL TAKEOFFS AS PER SMACNA

5 ROUND DUCT CONNECTIONS DETAILS  
SCALE: NTS

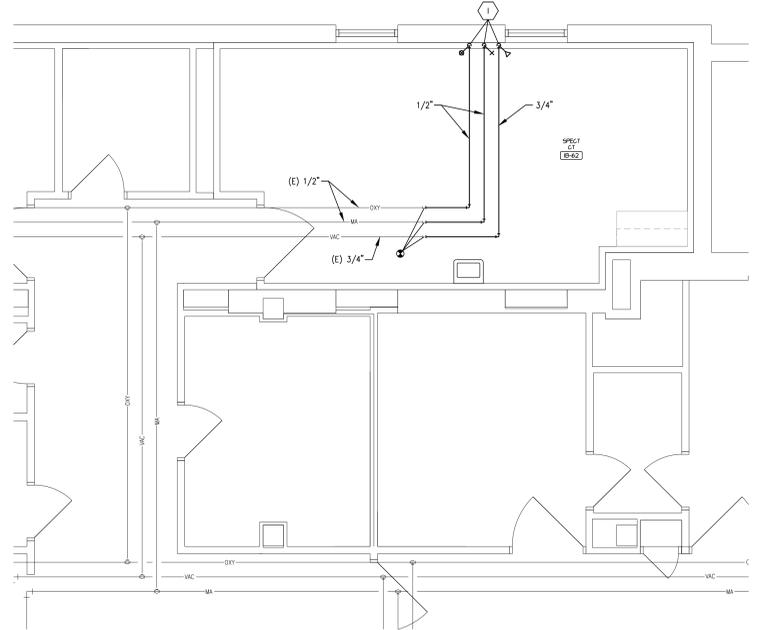


1 FIRST FLOOR PLUMBING PLAN  
SCALE: 1/4" = 1'-0"



3 BASEMENT VENTILATION PLAN  
SCALE: 1/4" = 1'-0"

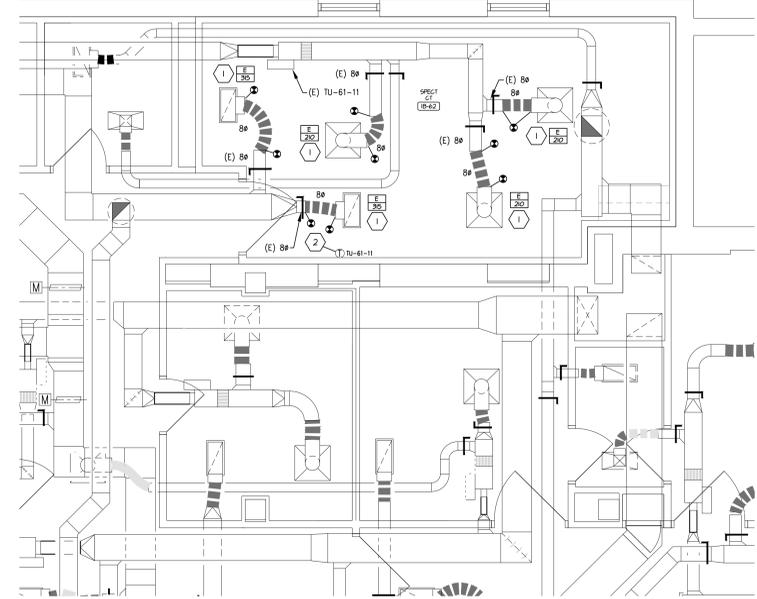
**PLUMBING NOTES:**  
 A. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.  
 B. COORDINATE ALL PLUMBING INSTALLATION WITH GENERAL, FIRE PROTECTION, VENTILATION, AND ELECTRICAL CONTRACTORS. INSTALL ALL PLUMBING PIPING AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISES) TO KEEP PLUMBING PIPING TIGHT TO THE STRUCTURE OR DUCTWORK ABOVE. OFFSET PLUMBING PIPING TO AVOID BEAMS AND INSTALLATION BY ALL TRADES.  
 C. REFER TO AND COORDINATE WITH THE ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS, AND ELEVATIONS FOR INSTALLATION OF NEW PLUMBING PIPING, EQUIPMENT, ETC.  
 D. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE INSTALLATION OF NEW PLUMBING PIPING, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.  
 E. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS AND/OR CEILINGS FOR INSTALLATION OF NEW PLUMBING PIPING, EQUIPMENT, ETC. AS REQUIRED. PATCH WALLS AND/OR CEILINGS TO MATCH EXISTING.  
 F. MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.  
 G. ALL SHUT-OFF VALVES, ETC. SHALL BE INSTALLED IN ACCESSIBLE CEILINGS.  
 H. EXTEND 1/2" CW & HW AND 2" WASTE OVER TO RELOCATED LAVATORY IN WALL. OFFSET EXISTING & NEW PIPING IN THE WALL AS REQUIRED FOR NEW CONNECTIONS.



2 FIRST FLOOR MEDICAL GAS PLAN  
SCALE: 1/4" = 1'-0"

**MEDICAL GAS NOTES:**  
 A. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.  
 B. COORDINATE ALL MEDICAL GAS INSTALLATION WITH GENERAL, FIRE PROTECTION, VENTILATION, AND ELECTRICAL CONTRACTORS. INSTALL ALL MEDICAL GAS PIPING AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISES) TO KEEP MEDICAL GAS PIPING TIGHT TO THE STRUCTURE OR DUCTWORK ABOVE. OFFSET MEDICAL GAS PIPING TO AVOID BEAMS AND INSTALLATION BY ALL TRADES.  
 C. REFER TO AND COORDINATE WITH THE ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS, AND ELEVATIONS FOR INSTALLATION OF NEW MEDICAL PIPING, EQUIPMENT, ETC.  
 D. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE INSTALLATION OF NEW MEDICAL GAS PIPING, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.  
 E. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS AND/OR CEILINGS FOR INSTALLATION OF NEW MEDICAL GAS PIPING, EQUIPMENT, ETC. AS REQUIRED. PATCH WALLS AND/OR CEILINGS TO MATCH EXISTING.  
 F. MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.  
 G. ALL SHUT-OFF VALVES, ETC. SHALL BE INSTALLED IN ACCESSIBLE CEILINGS.  
 H. RELOCATED MEDICAL GAS OUTLETS

**MEDICAL GAS LEGEND:**  
 OXYGEN GAS OUTLET  
 MEDICAL AIR GAS OUTLET  
 MEDICAL VACUUM OUTLET



4 FIRST FLOOR VENTILATION PLAN  
SCALE: 1/4" = 1'-0"

**VENTILATION NOTES:**  
 A. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.  
 B. COORDINATE ALL DUCTWORK INSTALLATION WITH GENERAL, PLUMBING, FIRE PROTECTION, AND ELECTRICAL CONTRACTORS. INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISES) TO KEEP DUCTWORK TIGHT TO THE STRUCTURE ABOVE AND INSTALLATION BY ALL TRADES. OFFSET DUCTWORK TO AVOID BEAMS.  
 C. REFER TO AND COORDINATE WITH THE ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS, AND ELEVATIONS FOR INSTALLATION OF NEW VENTILATION DUCTWORK, EQUIPMENT, ETC.  
 D. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE INSTALLATION OF NEW VENTILATION DUCTWORK, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.  
 E. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS AND/OR CEILINGS FOR INSTALLATION OF NEW VENTILATION DUCTWORK, EQUIPMENT, ETC. AS REQUIRED. PATCH WALLS AND/OR CEILINGS TO MATCH EXISTING.  
 F. MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.  
 G. ALL DAMPERS, ETC. SHALL BE INSTALLED IN ACCESSIBLE CEILINGS.  
 H. ALL OPEN ENDS OF DUCTS SHALL BE CAPPED AT THE END OF CONSTRUCTION EACH DAY.  
 I. ALL VAV BOXES, TERMINAL COILS, ETC. SHALL BE LOCATED AS ACCESSIBLE AS POSSIBLE TO THE CONTROLLED DEVICE.  
 J. RELOCATED GRILLE/DIFFUSER AS REQUIRED FOR CEILING WORK. PROVIDE NEW FLEX DUCTWORK. VERIFY EXISTING DIFFUSERS/GRILLE AIRFLOW BEFORE AND AFTER WORK. WORK SHALL BE REMOVED UNDER DUCT ALTERNATE NO. 1.  
 K. REINSTALL EXISTING THERMOSTAT. PROVIDE NEW WIRING AND CONDUIT AS REQUIRED FOR WORK.  
 L. RELOCATED GRILLE/DIFFUSER REQUIRED FOR CEILING WORK. PROVIDE NEW DUCTWORK FOR CONNECTION TO EXISTING.  
 M. OFFSET EXISTING PLUMBING PIPING IN CHASE AS REQUIRED FOR NEW STRUCTURAL WORK IN BASEMENT.

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**Drawing Title**  
 PLUMBING, MED GAS & VENTILATION  
 PLANS AND DETAILS

VA Project No. 437-14-115  
 Contract No. VA263-P-1217  
 VA263-C-  
 AutoCAD File Name 2014004-H2.dwg

**Project Title**  
 SITE PREP FOR SPECT CT ROOM 1B-62

Designed By JCP  
 Checked By JCP  
 Drawn By NPH

Location FARGO VA HEALTH CARE SYSTEM  
 FARGO, ND

Date MARCH 7, 2014  
 Scale AS SHOWN  
 Drawing No. H2  
 Dwg. 5 of 7

